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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/622,180

Applicant(s)

LEVY, KENNETH L.

Examiner

Baotran N. To

Art Unit

2435

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08/02/2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 and 41-59 is/are pending in the application.
- 4a) Of the above claim(s) 40 (Canceled) is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 and 41-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/02/2010 has been entered.

This Office action is in response to the Amendment filed on 08/02/2010.

Claims 1, 14, and 17 are amended.

Claim 40 is previously canceled.

Claims 1-39 and 41-59 remain for examination.

Response to Arguments

2. Applicant's arguments filed 08/02/2010 have been fully considered but they are not persuasive.

Applicant appears to argue with the independent Claims 1 and 17 that Kori 844 does not disclose the amended limitation of "such modifying or disabling being triggered through the presence of the identifier in the data repository" (Page 21 of Remarks).

Examiner respectfully disagrees. Kori 844 clearly the amended limitation of "such modifying or disabling being triggered through the presence of the identifier in the data repository" in col. 9, lines 1-12 which states that "When that information content is inputted in the MD recording apparatus again, the content ID attached to that information content and the copy permitted count in the copy control information are not entered in the table TB because that information content is already stored in the table TB. Then, from the copy permitted count for the information content indicated by the content ID in the table TB, the MD recording apparatus determines whether that information content can be copied in the MD recording apparatus. If the information content is found duplicatable, the MD recording apparatus decrements the copy permitted count in the table TB by one upon completion of copying." Therefore, the rejection is maintained.

Applicant appears to argue with the independent Claims 18 and 33 that Kori 802 "says nothing about comparing first media content buffered in an output buffer with second media content buffered in an input buffer" (Page 17 of Remarks).

Examiner respectfully disagrees. Kori explicitly discloses the above feature as "The control section 520 compares the content ID from the content ID detection section 512 with the contents IDs stored in the copying history information management memory 522 to search for the contents ID same as the contents ID of the audio signal instructed to be copied by the user (step S306) Figure 12, element S306, col. 32, lines

8-14). Please note that "buffered" recited in the claim can be interpreted broadly as stored as mentioned in this passage.

Applicant appears to argue with the independent Claim 39 that the combination of Kori 844 and Levy "says nothing of determining which out of a plurality of copy control systems applies based on the embedding key" (Page 19 of Remarks).

This is not found persuasive because the combination of Kori 844 and Levy discloses of "determining which out of a plurality of copy control systems applies to the protected media content based on the embedding watermark information (see If the electronic watermark information is found superimposed on the information content, the controller 40 references the CGMS information in the electronic watermark information detected in the WM detecting block 35 (step S2). If this CGMS information is found "11" indicating that copying is prohibited, the controller 40 controls the recording control block 43 to disable the recording (step S8) Figures 8 and 11, element S2) (Kori 844, col. 10, line 65 - col. 11, line 5).

Applicant further appears to argue with Claims 48 that the combination of Kori 844 and Levy "no discussion of determining a copy control state with reference to the watermark key and a copy control system with reference to a watermark payload" (Page 20 of Remarks).

Examiner respectfully disagrees. The combination of Kori 844 and Levy discloses the above features as determining which out of a plurality of copy control systems the

media content should be handled by reference to the watermark payload (see "11" indicating that copying is prohibited, "00" or "10" indicating that copying is permitted, Figures 8 and 11, col. 10, line 65 – col. 11, line 46), the watermark payload being obtained by analyzing the media content with at least a multi-purpose electronic processor that is configured for watermark decoding (see col. 11, lines 14-21, the controller 40 detects and analyzes ISRC to identify the information content (step S5). When the ISRC of the information content is detected, the controller 40 searches the copy history information managing memory 41 on the basis of this ISRC to determine whether the copy history of this information content is stored in the table TB in the memory 41 (step S6)); and providing copy control according to the determined copy control state through the determined copy control system (see If the past history is found in the table TB, the controller 40 checks the copy permitted count for this information content (step S7). If the copy permitted count is 0, the controller 40 stops recording (step S8). If the copy permitted count is 1 or more, the controller 40 continues recording and determines whether the end flag of the copy control information added to the information content is set up or not (step S9). Then, the controller 40 detects the end of the information content with the end flag set up. When copying ends by the key operation by the user, the controller 40 decrements the copy permitted count of the copied information content by one, updating the copy history information (step S10), Figures 8 and 11, col. 10, line 65 – col. 11, line 46). Kori 844 does not explicitly disclose determining copy control should govern the protected media content by reference to the

watermark key. However, Levy clearly discloses determining copy control should govern the protected media content by reference to the watermark key (paragraph 0022).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Levy within Kori 844 to include determining copy control should govern the protected media content by reference to the watermark key in order to improve security.

For at least the above reasons, the rejections for claims 1-39 and 41-59 are maintained.

Applicant requested for an interview for this application. Thus, Applicant is invited to contact the Examiner to schedule the telephone conference which would expedite prosecution of this application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5, 7-17, 49 and 58-59 are rejected under 35 U.S.C. 102(e) as being anticipated by Kori et al. U.S. Patent 6,836,844 hereinafter Kori 844.

With respect to claim 1, Kori 844 discloses determining whether media content is designated as copy once (see Figure 8, col. 4, lines 38-51 and col. 10, lines 44-47 permitted once);

if the media content is designated as copy once (see If the CGMS information is "00" or "10" indicating that copying is permitted, the controller 40 starts a recording operation (step S3) Figure 8, col. 11, lines 5-6), utilizing at least a configured multi-purpose electronic processor to obtain an identifier for the media content (see the controller 40 detects and analyzes ISRC to identify the information content (step S5). When the ISRC of the information content is detected, the controller 40 searches the copy history information managing memory 41 on the basis of this ISRC to determine whether the copy history of this information content is stored in the table TB in the memory 41 (step S6) col. 11, lines 15-20);

querying a data repository (see Figure 6, element 41) which is separate from the media content itself to determine if the identifier is stored therein (see If the past history is found in the table TB, the controller 40 checks the copy permitted count for this information content (step S7). If the copy permitted count is 0, the controller 40 stops recording (step S8). If the copy permitted count is 1 or more, the controller 40 continues recording and determines whether the end flag of the copy control information added to the information content is set up or not (step S9). Then, the controller 40 detects the

end of the information content with the end flag set up. When copying ends by the key operation by the user, the controller 40 decrements the copy permitted count of the copied information content by one, updating the copy history information (step S10) col. 11, lines 21-33);

if the identifier is found in the data repository, modifying or disabling a copy function (see If the past history is found in the table TB, the controller 40 checks the copy permitted count for this information content (step S7). If the copy permitted count is 0, the controller 40 stops recording (step S8). If the copy permitted count is 1 or more, the controller 40 continues recording and determines whether the end flag of the copy control information added to the information content is set up or not (step S9) col. 11, lines 21-33),

such modifying or disabling being triggered through the presence of the identifier in the data repository (see When that information content is inputted in the MD recording apparatus again, the content ID attached to that information content and the copy permitted count in the copy control information are not entered in the table TB because that information content is already stored in the table TB. Then, from the copy permitted count for the information content indicated by the content ID in the table TB, the MD recording apparatus determines whether that information content can be copied in the MD recording apparatus. If the information content is found duplicatable, the MD recording apparatus decrements the copy permitted count in the table TB by one upon completion of copying col. 8, lines 1-12); and

if the identifier is not found in the data repository, adding the identifier to the data repository (see If the last history is not found in the table TB in step S6, the controller 40 sets the content ID namely ISRC in the copy control information attached to the information content and the copy permitted count to the table TB as a preparatory operation for storing the copy history in the copy history information managing memory 41 as information content entered in the recording apparatus for the first time col. 11, lines 34-40).

With respect to claim 2, Kori 844 discloses wherein the identifier comprises a content identifier (see Figure 1, element 4, "content ID").

With respect to claim 3, Kori 844 discloses wherein the content identifier is conveyed by a digital watermark embedded in the media content (see Figure 1, element 4, "content ID"), and said obtaining comprises reading the digital watermark to obtain the content identifier (see Figure 1, element 4, "content ID").

With respect to claim 4, Kori 844 discloses wherein the content identifier is obtained from a header associated with the media content (see Figure. 4).

With respect to claim 5, Kori 844 discloses wherein the content identifier is obtained from an encryption system associated with the media content (see Figure 1, col. 7, lines 54-60).

With respect to claim 7, Kori 844 reference teaches wherein the media content is stored on physical media (see Figure 1, DVD/MD), and the identifier comprises a physical media identifier (see Figure 2, col. 4, lines 26-36).

With respect to claim 8, Kori 844 discloses wherein the physical media comprises a DVD (see Figure 1, DVD), and the physical media identifier comprises a unique serial number corresponding to the DVD (see Figure 2, col. 4, lines 26-36).

With respect to claim 9, Kori 844 discloses further comprising allowing copying of the media content when the identifier is not found in the data repository (see col. 11, lines 34-40).

With respect to claim 10, Kori 844 discloses wherein the media content comprises a digital watermark embedded therein, the digital watermark indicating that the media content is designated as copy once, and wherein said determining comprises reading the digital watermark (see col. 5, lines 39-67).

With respect to claim 11, Kori 844 discloses wherein the media content comprises metadata associated therewith, the metadata indicating that the media content is designated as copy once, and wherein said determining comprises analyzing the metadata (see Figures 1-7, col. 4, lines 26-51).

With respect to claim 12, Kori 844 discloses wherein the metadata is stored in a file header (see Figure 9).

With respect to claim 13, Kori 844 discloses wherein the media content is associated with an encryption system, the encryption system indicating that the media content is designated as copy once, and wherein said determining comprises communicating with the encryption system (see col. 7, line 67 – col. 8, line 7).

With respect to claim 14, Kori 844 discloses a recording device performing the method of claim 1 (see Figure 1, recording apparatus).

With respect to claim 15, Kori 844 discloses wherein the data repository is co-located with the recording device (see Figure 6, element 41).

With respect to claim 16, Kori 844 discloses wherein the data repository is remotely located from the recording device (see Figure 6, element 41).

With respect to claim 17, Kori 844 discloses a recording device that is operable to copy media content, said device comprising:

a data repository (see figure 6, element 41);

electronic processing circuitry (see figures 1 and 6, element 40);

a system communications bus (see figures 1 and 6, IEEE 1394) to facilitate communication between the data repository and the electronic processing circuitry, said electronic processing circuitry executing acts of:

determining whether media content which is separate from the data repository is designated as copy once (see Figure 8, col. 4, lines 38-51 and col. 10, lines 44-47 "copy once");

if the media content is designated as copy once (see If the CGMS information is "00" or "10" indicating that copying is permitted, the controller 40 starts a recording operation (step S3) col. 11, lines 5-6), obtaining an identifier for the media content (see the controller 40 detects and analyzes ISRC to identify the information content (step S5). When the ISRC of the information content is detected, the controller 40 searches the copy history information managing memory 41 on the basis of this ISRC to determine whether the copy history of this information content is stored in the table TB in the memory 41 (step S6) col. 11, lines 15-20);

querying a data repository to determine if the identifier is stored therein (see If the past history is found in the table TB, the controller 40 checks the copy permitted count for this information content (step S7). If the copy permitted count is 0, the controller 40 stops recording (step S8). If the copy permitted count is 1 or more, the controller 40 continues recording and determines whether the end flag of the copy control information added to the information content is set up or not (step S9). Then, the controller 40 detects the end of the information content with the end flag set up. When copying ends by the key operation by the user, the controller 40 decrements the copy

permitted count of the copied information content by one, updating the copy history information (step S10) col. 11, lines 21-33)

if the identifier is found in the data repository, modifying or disabling a copy function (see If the past history is found in the table TB, the controller 40 checks the copy permitted count for this information content (step S7). If the copy permitted count is 0, the controller 40 stops recording (step S8). If the copy permitted count is 1 or more, the controller 40 continues recording and determines whether the end flag of the copy control information added to the information content is set up or not (step S9) col. 11, lines 21-33);

such modifying or disabling being triggered through the presence of the identifier in the data repository (see When that information content is inputted in the MD recording apparatus again, the content ID attached to that information content and the copy permitted count in the copy control information are not entered in the table TB because that information content is already stored in the table TB. Then, from the copy permitted count for the information content indicated by the content ID in the table TB, the MD recording apparatus determines whether that information content can be copied in the MD recording apparatus. If the information content is found duplicatable, the MD recording apparatus decrements the copy permitted count in the table TB by one upon completion of copying col. 8, lines 1-12); and

if the identifier is not found in the data repository, adding the identifier to the data repository (see If the last history is not found in the table TB in step S6, the controller 40 sets the content ID namely ISRC in the copy control information attached to the

information content and the copy permitted count to the table TB as a preparatory operation for storing the copy history in the copy history information managing memory 41 as information content entered in the recording apparatus for the first time col. 11, lines 34-40).

4. Claims 18-28, 32-33, 36-38, and 50-53 are rejected under 35 U.S.C. 102(e) as being unpatentable by Kori U.S. Patent 6,687,802 B1 hereinafter Kori 802.

With respect to claims 18 and 50-51, Kori 802 discloses a method of providing copy protection for protected media content on a computer system, the computer system comprising an output port and an associated output buffer, and an input port and an associated input, said method comprising:

analyzing first media content buffered in the output buffer (see Figure 12, content ID from the content ID detection section 512);

analyzing second media content buffered in the input buffer (see Figure 12, content ID from the contents IDs stored in the copying history information management memory 522); and

comparing the first media content buffered in the output buffer with the second media content buffered in the input buffer (see The control section 520 compares the content ID from the content ID detection section 512 with the contents IDs stored in the copying history information management memory 522 to search for the contents ID same as the contents ID of the audio signal instructed to be copied by the user (step

S306) Figure 12, element S306, col. 32, lines 8-14), wherein a copy operation is modified or disabled when the first media content and the second media content match or otherwise coincide (see the control section 520 discriminates whether or not the contents ID same as the contents ID of the audio signal instructed to be copied by the user is present in the copying history information management memory 522 (step S307). If the control section 520 discriminates in the discrimination processing in step S307 that the same contents ID is present in the copying history information management memory 522, then since the audio signal of the contents ID has already been copied by the audio/video-only apparatus, the control section 520 controls the writing control section 508 so that the target music data may not be copied, thereby ending the processing procedure Figure 12, element S307-S309, col. 32, lines 14-37).

With respect to claim 19, Kori 802 discloses wherein the computer system comprises a single computer system (see Figures 1 and 3, recording apparatus).

With respect to claim 20 and 23, Kori 802 discloses wherein the output buffer comprises a matrix of output buffers, and the input buffer comprises a matrix of input buffers (see Figure 9).

With respect to claim 21 and 24, discloses teaches wherein said comparing compares at least active output buffers with active input buffers (see Figure 12, element S306, col. 32, lines 8-14).

With respect to claim 22, Kori 802 discloses wherein the computer system comprises at least two networked computers, with a first computer comprising the output and a second computer comprising the input port (Figure 6).

With respect to claim 25, Kori 802 discloses wherein the first media content comprises a first identifier embedded therein in the form of a digital watermark (see Figure 12, content ID from the content ID detection section 512) and the second media content comprises a second identifier embedded therein in the form of a digital watermark (see Figure 12, content ID from the contents IDs stored in the copying history information management memory 522), and wherein said analyzing first media content buffered in the output buffer comprises obtaining the first identifier from its watermark, said analyzing second media content buffered in the input buffer comprises obtaining the second identifier from its watermark, and said comparing the first media content buffered in the output buffer and the second media content buffered in the input buffer comprises comparing at least a portion of the first identifier with at least a portion of the second identifier (see Figure 12, element S306, col. 32, lines 8-14).

With respect to claim 26, Kori 802 discloses wherein the copy operation is modified or disabled when the portion of the first identifier and the portion of the second identifier match or otherwise coincide (see Figure 12, element S307-S309, col. 32, lines 14-37).

With respect to claim 27, Kori 802 discloses wherein the first media content comprises a first identifier embedded in the form of a digital watermark, and wherein said analyzing first media content buffered in the output buffer, and said analyzing second media content buffered in the input buffer comprises obtaining a plurality of identifiers embedded as digital watermarks in the second media over a time period, and said comparing the first media content buffered in the output buffer and the second media content buffered in the input buffer comprises comparing at least a portion of the first identifier with at least portions of the plurality of identifiers (see Figure 12, element S306, col. 32, lines 8-14).

With respect to claim 28, Kori 802 discloses wherein the copy operation is modified or disables when the portion of the first identifier and the portions of the plurality of identifiers match or otherwise coincide (see Figure 12, element S307-S309, col. 32, lines 14-37).

With respect to claim 32, Kori 802 discloses further comprising determining that the media content is protected via reference to at least one of a digital watermark (see col. 216, lines 50-53), header, metadata (see abstract; col. 131, line 61- col. 132, line 6) and encryption system (see col. 118, lines 54-57; col. 161, lines 24-33).

With respect to claims 33 and 52-53, Kori 802 discloses a method of providing copy protection for protected media content on a computer system, the computer system comprising an output port and an associated output buffer, and an input port and an associated input buffer, said method comprising:

obtaining first media content buffered in the output buffer (see Figure 12, content ID from the content ID detection section 512);

obtaining second media content buffered in the input buffer (see Figure 12, content ID from the contents IDs stored in the copying history information management memory 522); and

comparing the first media content buffered in the output buffer and the second media content buffered in the input buffer through correlation of the first media content with the second media content (see The control section 520 compares the content ID from the content ID detection section 512 with the contents IDs stored in the copying history information management memory 522 to search for the contents ID same as the contents ID of the audio signal instructed to be copied by the user (step S306) Figure 12, element S306, col. 32, lines 8-14), wherein a copy operation is modified or disabled when the correlation of the first media content and the second media content indicates that the first media content and the second media content match or otherwise coincide (see the control section 520 discriminates whether or not the contents ID same as the contents ID of the audio signal instructed to be copied by the user is present in the copying history information management memory 522 (step S307). If the control section 520 discriminates in the discrimination processing in step S307 that the same contents

ID is present in the copying history information management memory 522, then since the audio signal of the contents ID has already been copied by the audio/video-only apparatus, the control section 520 controls the writing control section 508 so that the target music data may not be copied, thereby ending the processing procedure Figure 12, element S307-S309, col. 32, lines 14-37).

With respect to claim 36, Kori 802 discloses wherein the first media content and the second media content each comprise audio (see Figure 8).

With respect to claim 37, Kori 802 discloses further comprising compensating for a time delay associated with the second media content relative to the first media content (see figure 12).

With respect to claim 38, Kori 802 discloses further comprising compensating for a time delay associated with the second media content relative to the first media content (see figure 12).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 39, 41-48, and 54-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kori et al. U.S. Patent 6,836,844 hereinafter Kori 844 in view of Levy (U.S. Patent Application Publication No. 2001/044899 A1) hereinafter Levy.

With respect to claims 39 and 54-55, Kori 844 discloses a method of providing copy control for protected media content comprising:

determining which out of a plurality of copy control systems applies to the protected media content (see Figures 8 and 11, col. 10, line 65 – col. 11, line 46), said protected media content comprises a digital watermark (electronic watermark) (see Figures 8 and 11, element S1, col. 10, line 65 – col. 11, line 5) embedded in the media content according to an embedding watermark information (see Figures 8 and 11, element S2, col. 11, lines 1-14), said determining determines which out of a plurality of copy control systems applies to the protected media content based on the embedding watermark information (see If the electronic watermark information is found superimposed on the information content, the controller 40 references the CGMS information in the electronic watermark information detected in the WM detecting block 35 (step S2). If this CGMS information is found "11" indicating that copying is prohibited, the controller 40 controls the recording control block 43 to disable the recording (step S8) Figures 8 and 11, element S2) (col. 10, line 65 – col. 11, line 5); and

controlling with at least a configured multi-purpose electronic processor the protected media content according to a determined copy control system (see If the past history is found in the table TB, the controller 40 checks the copy permitted count for

this information content (step S7). If the copy permitted count is 0, the controller 40 stops recording (step S8). If the copy permitted count is 1 or more, the controller 40 continues recording and determines whether the end flag of the copy control information added to the information content is set up or not (step S9). Then, the controller 40 detects the end of the information content with the end flag set up. When copying ends by the key operation by the user, the controller 40 decrements the copy permitted count of the copied information content by one, updating the copy history information (step S10) Figures 1- 2, 8, and 11, element 40, col. 10, line 65 – col. 11, line 46).

Kori 844 does not explicitly disclose determining the copy control system applies the protected media content based on a watermark key. However, Levy clearly discloses determining the copy control system applies the protected media content based on a watermark key (paragraph 0022).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Levy within Kori 844 to include determining the copy control system applies the protected media content based on a watermark key in order to improve security.

With respect to claims 48 and 56-57, Kori 844 discloses a method of providing copy control for protected media content, the protected media content comprising a digital watermark embedded therein according to a watermark key, said digital watermark comprising a payload which is separate from the watermark key, said method comprising:

determining which out of a plurality of copy control should govern the protected media content by reference to the watermark information (see If this CGMS information is found "11" indicating that copying is prohibited, the controller 40 controls the recording control block 43 to disable the recording (step S8), If the CGMS information is "00" or "10" indicating that copying is permitted, the controller 40 starts a recording operation (step S3) Figures 8 and 11, col. 10, line 65 – col. 11, line 46);

determining which out of a plurality of copy control systems the media content should be handled by reference to the watermark payload (see "11" indicating that copying is prohibited, "00" or "10" indicating that copying is permitted, Figures 8 and 11, col. 10, line 65 – col. 11, line 46), the watermark payload being obtained by analyzing the media content with at least a multi-purpose electronic processor that is configured for watermark decoding (see col. 11, lines 14-21, the controller 40 detects and analyzes ISRC to identify the information content (step S5). When the ISRC of the information content is detected, the controller 40 searches the copy history information managing memory 41 on the basis of this ISRC to determine whether the copy history of this information content is stored in the table TB in the memory 41 (step S6)); and

providing copy control according to the determined copy control state through the determined copy control system (see If the past history is found in the table TB, the controller 40 checks the copy permitted count for this information content (step S7). If the copy permitted count is 0, the controller 40 stops recording (step S8). If the copy permitted count is 1 or more, the controller 40 continues recording and determines whether the end flag of the copy control information added to the information content is

set up or not (step S9). Then, the controller 40 detects the end of the information content with the end flag set up. When copying ends by the key operation by the user, the controller 40 decrements the copy permitted count of the copied information content by one, updating the copy history information (step S10), Figures 8 and 11, col. 10, line 65 – col. 11, line 46).

Kori 844 does not explicitly disclose determining copy control should govern the protected media content by reference to the watermark key. However, Levy clearly discloses determining copy control should govern the protected media content by reference to the watermark key (paragraph 0022).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated Levy within Kori 844 to include determining copy control should govern the protected media content by reference to the watermark key in order to improve security.

With respect to claim 41, Kori 844 and Levy disclose wherein the key (see Figure 3, element S2) further designates a copy control state (see col. 11, lines 5-13 and paragraph 0022).

With respect to claim 42, Kori 844 and Levy disclose wherein the copy control state comprises at least one of copy never; copy once, copy freely or copy no more (see col. 11, lines 3-5, "copying is prohibited").

With respect to claim 43, Kori 844 and Levy disclose the key indicates at least one of an embedding protocol, a watermark payload encryption scheme, an embedding characteristic, a pseudo-random sequence that is used to embed the watermark, locations within the media content used for watermark embedding, media content features to be modified to effect embedding and semantic meaning of particular features of the media content (Figure 3, col. 5 lines 55-67 and paragraph 0022).

With respect to claim 44, Kori 844 and Levy disclose wherein each of the plurality of copy control systems corresponds to at least one unique key (see Figures 8 and 11, element S2 and paragraph 0022).

With respect to claim 45, Kori 844 and Levy disclose the digital watermark comprising a multi-bit payload, and wherein said determining determines which out of a plurality of copy control systems applies to the protected media content based on at least one bit of the multi-bit payload and on the key (see Figures 8 and 11, col. 10, line 65 – col. 11, line 46 and paragraph 0022).

With respect to claim 46, Kori 844 and Levy disclose wherein each of the plurality of copy control systems is associated with a unique sequence of bits (see Figure 2).

With respect to claim 47, Kori 844 and Levy disclose wherein the plurality of copy control systems comprises at least one of a DVD player or recorder system or a conditional access TV system (see col. 1, lines 15-30).

With respect to claim 49, Kori 844 and Levy disclose said electronic processing circuitry comprises a multi-purpose electronic processor (Figure 1).

With respect to claim 58, Kori 844 and Levy disclose said electronic processing circuitry is operating to carry out at least one of the function recited therein (Figure 1).

With respect to claim 59, Kori 844 and Levy disclose the multi-purpose electronic processor is operating to carry out at least one of the function recited therein (Figure 1).

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kori 844 as claim 1 and further in view of Shear et al. U.S. PG Pub. 2001/0042043 hereinafter Shear.

With respect to claim 6, Kori 844 discloses wherein the content identifier is obtained by determining a the media content (see Figure 1, col. 7, lines 54-60), but fails to disclose a fingerprint of the media content However, Shear reference teaches determining fingerprint of media content, the fingerprint being derived from the media content itself (see page 18, ¶ [0265], "fingerprinting"). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said

subject matter pertains to have modified Kori 844 reference to include the teachings of Shear to have included fingerprinting in the media content for the purpose of providing secure rights management protection (see page 18, ¶ [0264]).

7. Claims 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kori 802 as claim 33 and further in view of Shear et al. U.S. PG Pub. 2001/0042043 hereinafter Shear.

With respect to claim 29, Kori 802 discloses analyzing first media content buffered in the output buffer, analyzing second media content buffered in the input buffer and comparing the first media

content buffered in the output buffer and the second media content buffered in the input buffer (see col. 113, lines 30-34 & 54-58);

determining first media content and the second media content (Figure 12).

Kori reference doesn't teach determining a first fingerprint of the first media content, determining a second fingerprint of the second media content, and comprises comparing at least a portion of the first fingerprint with at least a portion of the second fingerprint. Shear reference teaches determining a first fingerprint (see page 18, ¶ [0265], "fingerprinting") of the first media content, determining a second fingerprint (see page 18, ¶ [0265], "fingerprinting") of the second media content, and comprises comparing at least a portion of the first fingerprint with at least a portion of the second fingerprint (see page 18, ¶ [0265], "fingerprinting"). It would have been obvious at the

time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to have modified Kori reference to include the teachings of Shear to have included fingerprinting in the media content for the purpose of providing secure rights management protection (see page 18, ¶ [0264]).

With respect to claim 30, Kori 802 discloses wherein the copy operation is modified or disabled when the portion of the first and the portion of the second match or otherwise coincide (see Figure 12, element S307-S309, col. 32, lines 14-37). Kori reference doesn't teach the use of fingerprints. Shear reference teaches the use of fingerprints (see page 19, ¶ [0276], "fingerprinting methods"), It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to have modified Kori reference to include the teachings of Shear to have included fingerprinting in the media content for the purpose of providing secure rights management protection (see page 18, ¶ [0264]).

With respect to claim 31, Kori 802 and Shear disclose further comprising compensating for a time delay, associated with the second media content, relative to the first media content (see figure 12).

8. Claims 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kori 802 as claim 33 and further in view of Ton Kalker, "System Issues in Digital Image and Video Watermarking for Copy Protection," hereinafter Kalker.

With respect to claims 34 and 35, Kori 802 discloses the limitation of Claim 33 above. Kori does not explicitly disclose wherein the correlation makes use of a transform domain comprises a Fourier domain.

However, Kalker expressly discloses the correlation makes use of a transform domain comprises a Fourier domain (page 567).

Accordingly, it would have been obvious one skill in the art at the time the invention was made to modify Kori 802 reference to include transform domain is Fourier domain as taught by Kalker with motivation to do this because using Fourier domain implementation is inexpensive for copyright protection.

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bao Tran N. To whose telephone number is (571)272-8156. The examiner can normally be reached on Monday-Friday from 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2435

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/B. N. T./

Examiner, Art Unit 2435

/Kimyen Vu/

Supervisory Patent Examiner, Art Unit 2435